

REMARKS

New claim 20 has been added. Claims 1-20 are pending and under consideration.

I. Rejections under 35 U.S.C. § 102

In the Office Action, at pages 2-5, claims 1, 3, 8, and 10 were rejected under 35 USC § 102(e) as being anticipated by Kitajima et al. (U.S. Patent Application No. 2003/0128979).

Kitajima et al., as relied on by the Examiner, discloses an apparatus for an OADM and an OXC that, when an optical route is switched by a mechanical optical switch, detects performances (specifically, power deterioration of an optical signal, a synchronous state of an operation clock, a synchronous state of an optical signal frame, and an error rate of an optical signal) of an optical signal passed through the optical switch. An alarm is output when the obtained performance is degraded beyond a predetermined defined performance, thereby masking the output of the alarm for a predetermined masking period from a starting time of a switching operation by the optical switch, so as to prevent the alarm from being issued in mistake due to a momentary power failure while a switching operation is normal.

However, Kitajima et al. does not discuss or suggest:

repeatedly measuring for a plurality of times the frequency of occurrences of bit error in a previously set time for said selected signal light to be measured,

as recited in claim 1. In other words, the invention of claim 1 measures the frequency of error occurrences by repeatedly measuring the frequency of occurrences of bit error in a previously set time for a selected signal light to be measured. Therefore, the invention of claim 1 is capable of providing a measurement time per one occurrence of error of approximately one millisecond in, for example, an optical transmission system having an optical transmission rate per channel of 10 Gbps. As such, the invention of claim 1 provides for decreasing the time required for improvement of signal quality and increasing the measurement accuracy of the signal quality.

In contrast, the error rate of the optical signal, as provided by Kitajima et al., corresponds to a so-called Bit Error Rate (BER). Kitajima et al. discloses that BER measurements require a long period of time and that 10000 frames are necessary for a BER measurement since the frame synchronization is secured, and the process must wait for 10 seconds. Thus, error rate of the optical signal, as disclosed in Kitajima et al., does not correspond to measuring frequency of error occurrences by repeatedly measuring the frequency of occurrences of bit error in a

previously set time for a selected signal light to be measured, as is provided by the invention of claim 1.

Since Kitajima et al. does not discuss or suggest all of the features of claim 1, claim 1 patentably distinguishes over Kitajima et al. Accordingly, withdrawal of the § 102 rejection is respectfully requested.

Claim 3 depends from claim 1, and includes all the features of claim 1, plus additional features that are not discussed or suggested by the reference relied upon. Therefore, claim 3 patentably distinguishes over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102 rejection is respectfully requested.

Kitajima et al. does not discuss or suggest:

a bit error measuring section that repeatedly measures for a plurality of times the frequency of occurrences of bit error in a previously set time for said selected signal light to be measured,

as recited in claim 8, so that claim 8 patentably distinguishes over Kitajima et al. Accordingly, withdrawal of the § 102 rejection is respectfully requested.

Claim 10 depends from claim 8, and includes all the features of claim 8, plus additional features that are not discussed or suggested by the reference relied upon. Therefore, claim 10 patentably distinguishes over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102 rejection is respectfully requested.

II. Rejections under 35 U.S.C. § 103

In the Office Action, at page 6, claims 2 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kitajima et al. in view of Arnold (U.S. Patent Application No. 2004/0052524).

As discussed above, Kitajima et al. does not discuss or suggest all of the features of claims 1 and 8, so that claims 1 and 8 each patentably distinguish over Kitajima et al. Arnold fails to make up for this deficiency in Kitajima et al., so that claims 1 and 8 each patentably distinguish over Kitajima et al. and Arnold. Claims 2 and 9 depend from claims 1 and 8, respectively, and include all the features of claims 1 and 8, respectively, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 2 and 9 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 103 rejections is respectfully requested.

In the Office Action, at page 7, claims 18-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kitajima et al. in view of admitted prior art (Pub. No. 8-321805).

As discussed above, Kitajima et al. does not discuss or suggest all of the features of claim 8, so that claim 8 patentably distinguishes over Kitajima et al. The admitted prior art fails to make up for this deficiency in Kitajima et al., so that claim 8 patentably distinguishes over Kitajima et al. and the admitted prior art. Claims 18-19 depend from claim 8, and include all the features of claim 8, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 18-19 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 103 rejections is respectfully requested.

III. Allowable subject matter

In the Office Action, at page 3, claims 4-7 and 11-17 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As discussed above, none of the cited prior art discusses or suggests all of the features of claims 1 and 8. Claims 4-7 and 11-17 depend either directly or indirectly from claims 1 and 8, respectively, and include all the features of claims 1 and 8, respectively, plus additional features that have been acknowledged as patentable by the Examiner. Accordingly, withdrawal of these objections is respectfully requested and it is submitted that claims 4-7 and 11-17 are in a condition suitable for allowance.

IV. New Claim

New claim 20 has been added. None of the cited prior art discusses or suggests:

repeatedly measuring the frequency of occurrences of bit error in a
previously set time for said selected signal light to be measured,

as recited in new claim 20. Thus, it is submitted that new claim 20 is in a condition suitable for allowance.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.


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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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